



设计、制造与检验主要数据表 DESIGN/FABRICATION/INSPECTION DATA													
规范、标准 CODE & STANDARD		《压力容器》GB/T 150.1-150.4-2024 PRESSUER VESSEL			《钢制化工容器制造技术规范》HG/T 20584-2020 TECHNICAL STANDARD OF FABRICATION FOR STEEL CHEMICAL VESSELS								
参 数 PARAMETER					压力容器类别 PRESS. VESSEL CLASS		/						
工作压力 WORKING PRESS.		kg/cm ² G -0.816			焊接规程 WELDING SPEC		NB/T47015-2023						
设计压力 DESIGN PRESS.		kg/cm ² G 5.1/-1.0			焊接材料 WELDING MATERIAL		S31603		A022、ER316L				
额定工作压力 MAX. ALLOWABLE OPERATING PRESS.		/					CS		J427				
工作温度 WORKING TEMP.		°C 50					S31603CS		A312				
设计温度 DESIGN TEMP.		°C 120			焊接接头形式 WELDING STRUCTURE		除注明外按HG/T20583-2020规定执行 EXCEPT FOR THE INDICATION, THE FULLY WELDED JOINTS SHALL FOLLOW TO HG/T20583-2020						
尺寸 (组分) FLUID (COMPONENT)		MT、IBL、水(注1) MT、IBL、WATER(NOTE 1)			角接接头形式 THICK. OF JOINT WELD		除注明外按本规范执行 EXCEPT FOR THE SPECIFICATION, THE THICK. OF JOINTS SHALL FOLLOW TO THE BOARD						
尺寸 (组别) FLUID (CATEGORY)		935(注1/0.31) 935(注1/0.31 GAS)			法兰与接管焊接 WELDING DET. PIPE AND FLANGE		除注明外按本规范执行 IN ADDITION TO THE NOTICE, FOLLOW THE (PRESSURE) FLANGE STANDARDS						
介质性能 FLUID PERFORMANCE		中等毒性、易燃 MODERATE TOXIC/INFLAMMABLE			产品检验 PRODUCT INSPECTION		除注明外按本规范执行 EXCEPT FOR THE SPECIFICATION, THE THICK. OF JOINTS SHALL FOLLOW TO THE BOARD						
安全阀整定压力 THE SET PRESSURE OF SAFETY VALVES		kg/cm ² G /			工艺过程考虑 PROCESS SYSTEM CONSIDERATION		热 处 理 P.W.H.T		/				
设计使用寿命 DESIGN WORKING LIFE (YEARS)		10			其它 OTHERS		其它 OTHERS		/				
主要承压元件材料 MAIN MATERIAL		S31603			油漆、包装、运输 PAINT, PACKAGING, TRANSPORTATION		NB/T10558-2024, 22150-00000-MC08						
腐蚀裕量 CORR. ALLOW.		mm 0			管口、无接管开孔 NOZZLE ORIENTATION		管口类别 NOZZLE CATEGORY						
焊接接头系数 JOINT EFF.		1.0/1.0			管口类别 NOZZLE CATEGORY		检测率 QUALITY CLASS		标准 STANDARD		备注 REMARK		
耐压试验方法 (压力/介质) TYPE OF PROOVE PRESS. TEST		6.8/6.5 (HYDRO-H/V)			无缺陷 NO DEF.		100%		RT-II		AB NB/T47013-2015		
泄漏试验方法 (压力/介质) TYPE OF LEAK TEST		/			无缺陷 NO DEF.		100%		RT-II		AB NB/T47013-2015		
容积 CAPACITY		m ³ 2.72			无缺陷 NO DEF.		S.S		100%		PT-I NB/T47013-2015		
重量 WEIGHT		/			/		/		/		/		
保温层材料/厚度 INSULATION MATERIAL/THICKNESS		硅酸铝/30 ALUMINUM SILICATE BLANKET/30			/		/		/		/		
防火层材料/厚度 FIRE PREVENTION/THICKNESS		/			/		/		/		/		
补充技术要求: Supplementary technical requirements: 1. 除注明外,所有尺寸单位为“mm”,法兰螺栓孔应沿设备中心线或具平行线均布。 1. Except as specified, all dimension units are “mm”, and the flange bolt holes should be distributed along the center line of the equipment or its parallel lines. 2. 设备用S31603钢板应符合GB/T17137-2023《承压设备用钢板和钢带》的规定,且表面加工类型为A,固溶状态供货。 S31603钢板应符合NB/T47010-2017《承压设备用不锈钢和耐热钢锻件》中Ⅱ级要求执行制造、检验和验收。 S31603钢板应符合GB/T14976-2012《流体输送用不锈钢无缝管》的规定,无缝管管的壁厚偏差应不大于10% S/S为钢管壁厚。 2. The S31603 steel plate for equipment shall comply with the provisions of GB/T17137-2023 “Steel plates and steel belts for pressure-bearing equipment”, and the surface processing type is A, and the supply is solid solution. S31603 forgings should be manufactured, inspected and accepted in accordance with the Class II regulations of NB/T47010-2017 “Stainless Steel and Heat-resistant Steel Forgings for Pressure-bearing Equipment”. S31603 steel pipes should comply with the provisions of GB/T14976-2012 “Stainless Steel Seamless Steel Pipes for Fluid Transportation”. The negative deviation of the thickness of seamless steel pipes shall not exceed 10% S/S is the thickness of the steel pipe. 3. S31603钢板及其焊接接头(包括焊接工艺评文、产品焊接试件)按GB/T4334-2020方法进行晶间腐蚀试验,平均腐蚀速率应不大于1.6g/m ² ·h,腐蚀试验取样和批号按GB/T21433-2008第8条规定执行。 3. The intergranular corrosion test shall be conducted according to GB/T4334-2020 Method B, and the average corrosion rate shall not exceed 1.6g/m ² · h. The sampling and batching of corrosion specimens shall be carried out in accordance with Article 8 of GB/T21433-2008. 4. 壳体组焊完毕后,应按GB/T150.4-2024第6.5.11条检查壳体的圆度。 4. After the shell assembly is welded, the roundness of the shell should be checked according to Article 6.5.11 of GB/T150.4-2024. 5. 液面液位计管口安装尺寸公差按HG/T20584-2020中14.2.13条6条的规定。 5. The installation dimension tolerance of the on-site liquid level gauge port is in accordance with Article 6 of Article 14.2.13 in HG/T20584-2020. 6. DN<250的接管与法兰对接接头应按NB/T47013.5-2015进行100%渗透检测,合格级别不低于1级。M01接管与壳体焊接接头应按NB/T47013.3-2023进行100%超声检测,合格级别不低于1级。 6. The butt joints of the connectors of the DN<250 and the flange should be tested 100% permeation according to NB/T47013.5-2015, and the pass level shall not be lower than Level I. The welded joints of M01 connector and the shell should be 100% ultrasonic inspection in accordance with NB/T47013.3-2023, and the pass level shall not be lower than Level I. 7. 不锈钢设备水压试验用水的氯离子含量应小于25mg/L,试验合格后应立即排水并吹干。 7. The chloride ion content of water for water pressure testing of stainless steel equipment should be less than 25mg/L. After passing the test, the water should be drained and dried immediately. 8. 耐压试验合格后,介质接触的不锈钢表面应进行钝化处理,钝化液的浓度按GB/T25150-2010规定的方法检测,合格后必须用钝化液清洗干净,不得有残留。 8. After passing the pressure resistance test, the surface of the stainless steel contacted by the medium should be subjected to pickling and passivation. The passivation film formed should be tested according to the method specified in GB/T25150-2010. After passing the test, the pickling medium must be cleaned and there must be no residue. 注(Notes): 1. 介质组成(wt%): 液体: 甲醇 6.74, 甲酸 0.12, 异丁醇 4.82, 异戊酸 0.05, 三甲胺 1.86, 新戊二酸 0.25, 水 85.94, 其它 0.12。 气体: 0.11% 气相: 甲醇 22.45, 异丁醇 25.9, 三甲胺 31.9, 水 19.74。 1. Media composition (wt%): Liquid phase: methanol 6.74, formic acid 0.12, isobutanol 4.82, isobutyric acid 0.05, trimethylamine 1.86, neopentyl glycol 0.25, water 85.94, others 0.12, esters 1.86, neopentyl glycol 0.25, water 85.94, others 0.12, esters 1.86. 0.11% Gas phase: methanol 22.45, isobutanol 25.9, trimethylamine 31.9, water 19.74. 2. 吊耳仅靠空吊。 2. The hanging ears are only allowed to be empty. 3. 设计使用寿命不等于实际使用寿命,压力容器使用单位应根据装置的操作状况,对该设备进行定期和不定期检验,并确认实际寿命和设计寿命的符合性。 3. The design service life is not equal to the actual service life. The pressure vessel user unit should conduct regular and irregular inspections of the equipment according to the operating status of the device, and confirm the compliance of the actual life and design service life.													
管口表 LIST OF NOZZLE													
序号 ITEM	公称尺寸 NPS	公称压力 CLASS	连接标准 CONND. STD.	连接形式 FACING	用途及名称 SERVICE	管子规格 NOZZLE SIZE	材料牌号及规格 MATERIAL	备 注 REMARK					
N01	6	150	ASME B16.5-2020	WN	REFLUX INLET	Ø168.3×7.15	SEE DRAW						
N02	3	150	ASME B16.5-2020	WN	REFLUX OUTLET	Ø88.9×5.7	SEE DRAW						
N03	6	150	ASME B16.5-2020	WN	VACUUM CONNECTION	Ø168.3×7.15	SEE DRAW						
N04	2	150	ASME B16.5-2020	WN	REFLUX OUTLET	Ø60.3×5.65	760						
C11	1½	150	HG/T20615-2009	LWN	REFLUX OUTLET	Ø65×13	760						
C31	2	150	HG/T20615-2009	LWN	REFLUX OUTLET	Ø78×13	SEE DRAW						
C41	2	150	HG/T20615-2009	LWN	REFLUX OUTLET	Ø78×13	SEE DRAW						
C51-52	3	150	ASME B16.5-2020	WN	REFLUX OUTLET	Ø88.9×5.7	800						
C61-62	2	150	ASME B16.5-2020	WN	REFLUX OUTLET	Ø60.3×5.65	760						
M01	20	PN16	HG/T21521-2014	WN	REFLUX OUTLET	Ø530×14	按单 AS PER CODE						

GK	R25015-GK	管口零件 NOZZLE PARTS				419.4
8		保温圈 Ø1219×Ø1269×4 INSULATION RING	2	S31603	5	10
7	HG/T21574-2018	吊耳 SP-4-10 L=128 C=44 LIFTING LUG	2	Q235B/S31603	17	34
6		铭牌架 (A) NAMEPLATE HOLDER (AI)	1	S31603		1
5		铭牌 NAMEPLATE	1	S30408		
4		铭牌 Ø1200×Ø177 SHELL	1	S31603		476.7
3	GB/T25198-2023	铭牌 H=1200×Ø1651 HEAD	2	S31603	102.2	204.4
2	NB/T47065.2-2018	支腿 A-1100-8 SUPPORT	4	Q235B/S31603	33	132
1		接管座 EARPLATE	2	S30408	0.55	1.1
件 号	图号或标准号	名 称	数 量	材 料	单 重 SINGL. WT (TOTAL 重量 MASS (Kg))	备 注 REMARKS
PARTS NO.	DWG. NO. OR STD. NO.	PARTS NAME	QTY	MAT'L		
设备自重 (供货质量) NET MASS	(Kg)	1270				
空质量 EMPTY MASS	(Kg)					
操作质量 OPERATING MASS	(Kg)					
盛水质量 MASS OF FULL WATER	(Kg)	3990				
最大可拆卸质量 MAX. REMOV. PART MASS	(Kg)					
			标记 MARK	数量 QTY	更改文件号 CHANGE THE FILE NO.	签字 SIGN
						日期 DATE
浙江诚泰化工机械有限公司 ZHEJIANG CHENGTAI CHEMICAL MACHINERY CO.,LTD				图号 DWG. NO.	R25015-00	
设计 DESIGN	校核 CHK	审核 DISC APP	标准 CODE APP	工艺会签 PRO SIGN	批准 APPR	项目 SECTION
轻组分塔回流罐 LIGHT COMPONENT TOWER REFLUX TANK						项目 SECTION
总装配图 ASSEMBLY DRAWING						位号 ITEM NO.
						版 次
						REV
						比例 SCALE
						1 : 8
						第 张 SHEET OF 共 张
						审核 CHECKED (VIEW PICTURE)
						1